Sharine Rowe Midterm

Subject: Living Environment

Grade: 9

Topic: Energy – Photosynthesis

Objectives:

* Students will be able to describe the process of Photosynthesis, its raw materials, and its products.
* Students will be able to explain how sunlight energizes the process

Living Environment Performance Standards:

Key Idea 6: Plants and animals depend on each other and their physical environment. Students provide evidence that green plants make food and explain the significance of this process to other organisms

Teacher Competency: 3c- Engage students in learning

Background:

In previous lessons, students have already learned about Newton’s Laws of Thermodynamics. This lesson is centered on Newton’s first law: Energy can be changed from one form to another but it cannot be created or destroyed.

In this lesson, students will learn the basics of how the process of photosynthesis works. In a future activity, students will use this information to deepen their understanding of how energy transfers in an ecosystem..

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| Individual Activity | DO NOW: Students will create a KWL Chart about photosynthesis. Students will identify at least three K’s |
| Small Group Activity | Turn-and-Talk: In pairs, students will share two of their K items |
| Whole Group Activity | Volunteers share an item from their partner’s list with the class |
| Individual Activity | Using provided articles and/or video resources, students will create a flow chart to portray the process of Photosynthesis. Required Key Terms:  -Energy - Carbon Dioxide -Oxygen  -Sun - Glucose  -Water - Bonds |
| Individual Activity | Summary: Complete L in KWL (at least three “learnings”) |
| Whole Group Activity | Summary: Volunteers share out a learning from KWL |